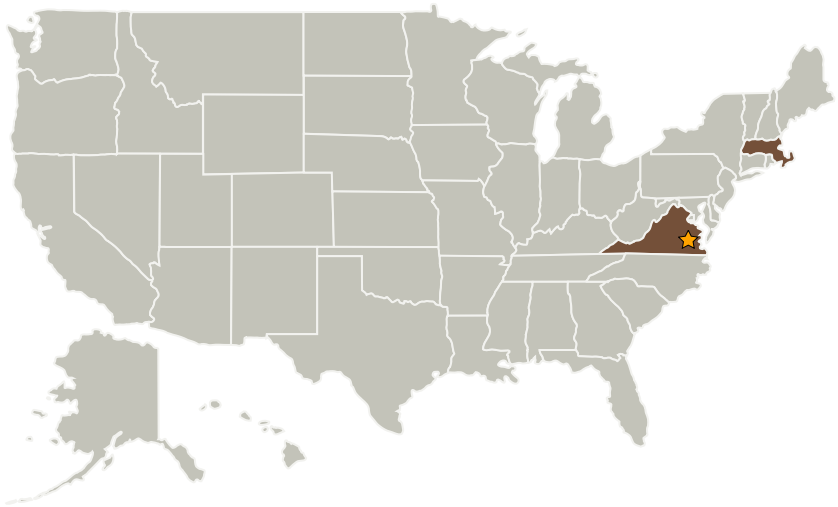
Scenario-Based Performance Observation Tool for Learning in Team Environments Aerospace Crew-Centered Technologies (SPOTLITE-ACT), Phase I

Completed Technology Project (2006 - 2006)

Project Introduction

The insertion of new technology in the cockpit, especially "smart" technology designed to become an additional crewmember, will necessarily impact flight-related operations and crew functioning. We propose to develop an observer-based assessment tool, and associated measures, that will allow National Aeronautics and Space Administration (NASA) researchers to assess the impact of new technologies on crew resource management (CRM) performance. This is particularly important because the new FAA Advisory Circular on CRM training specifically calls for specialized training and evaluation in advanced technology cockpits (AC 120-51E, Page12, Part 13c). Our proposed approach is innovative in two respects. First, in contrast to existing measures of CRM performance, the measures will be sensitive to performance effects related to the insertion of crew-centered technologies in the cockpit. Second, the performance measures will be implemented in a hand-held PC instrument, the Scenario-based Performance Observation Tool for Learning in Team Environments?Aerospace Crew-centered Technologies (SPOTLITE-ACT), with a relational database that will allow for easy collection, storage, and retrieval of experimental data. SPOTLITE-ACT will provide NASA researchers with the capability to measure and evaluate the effects of crew-centered technologies on pilot performance.

Primary U.S. Work Locations and Key Partners



Scenario-Based Performance Observation Tool for Learning in Team Environments Aerospace Crew-Centered Technologies (SPOTLITE-ACT), Phase I

Table of Contents

Scenario-Based Performance Observation Tool for Learning in Team Environments Aerospace Crew-Centered Technologies (SPOTLITE-ACT), Phase I

Completed Technology Project (2006 - 2006)

Organizations Performing Work	Role	Type	Location
★Langley Research Center(LaRC)	Lead Organization	NASA Center	Hampton, Virginia
Aptima, Inc.	Supporting Organization	Industry	Woburn, Massachusetts

Primary U.S. Work Locations	
Massachusetts	Virginia

Organizational Responsibility

Responsible Mission Directorate:

Space Technology Mission Directorate (STMD)

Lead Center / Facility:

Langley Research Center (LaRC)

Responsible Program:

Small Business Innovation Research/Small Business Tech Transfer

Project Management

Program Director:

Jason L Kessler

Program Manager:

Carlos Torrez

Technology Areas

Primary:

- TX06 Human Health, Life Support, and Habitation Systems
  - TX06.3 Human Health and Performance
    - TX06.3.3 Behavioral Health and Performance